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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,396	12/21/2001	Barnes Cooper	42390P13462	1140

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EXAMINER

STOYNOV, STEFAN

ART UNIT PAPER NUMBER

2116

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/027,396	COOPER, BARNES	
	<b>Examiner</b>	<b>Art Unit</b>	
	Stefan Stoynov	2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 21 December 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-10, 14-20, and 24-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4, 9, 10, 14, 19, 20, 24, 29 and 30 depend on claims 1, 11, and 21 where alternative language is used to describe the interaction between the SMI handler and either a speed step technology (SST) applet or a thermal driver in a thermal management operating system (OS).

Whereas, claims 4, 14, and 24 imply the presence for both a speed step technology (SST) applet and thermal management OS which contradicts with the parent claims. Accordingly, it is unclear what elements are required by the claims.

Claims 9, 10, 19, 20, 29, and 30 are indefinite because they further limit only the use of the speed step technology (SST) applet, but do not specify that speed step technology is required. For the purposes of examining the instant application, the examiner assumes that speed step technology is required by the claims.

Claims 5-8, 15-18, and 25-28 are similarly indefinite being dependent on claims 4, 14, and 14.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 11-13, and 21-23 are rejected under 35 U.S.C. 102(b) as

being anticipated by Hobson.

Re claim 1, Hobson discloses a method comprising:

- invoking a system management interrupt (SMI) handler (column 3, lines 2-4);
- determining a thermal state of a processor by the SMI handler (column 3, lines 2-4); and
- interacting between the SMI handler and one of speed step technology (SST) applet and a thermal driver in a thermal management operating system (OS) (column 3, lines 4-10) to transition the processor to one of a low power state and a high power state based on the thermal state according to a native performance control status (column 3, lines 10-14).

Re claim 2, Hobson discloses the method wherein invoking the SMI comprises:

- invoking the SMI at a predetermined time intervals (column 2, line 67 and column 3, lines 1-2).

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Re claim 3, Hobson discloses the method wherein determining the thermal state comprises:

- reading a sensor indicating temperature of a processor (column 2, lines 41 and 42).

Re claim 11, Hobson discloses a computer program product (column 4, lines 47-49) comprising a machine useable medium having computer program code embedded therein (column 4, lines 50-57) having:

- computer readable program code to invoke a system management interrupt (SMI) handler in response to an SMI (column 3, lines 2-4);
- computer readable program code to determine a thermal state of a processor by the SMI handler (column 3, lines 2-4); and
- computer readable program code to interact between the SMI handler and one of a speed step technology (SST) applet and a thermal driver in a thermal management operating system (OS) (column 3, lines 4-10) to transition the processor to one of low power and high power state based on the thermal state according to a native control status (column 3, lines 10-14).

Re claim 12, Hobson discloses the computer program wherein the computer readable program code to invoke SMI comprises:

- computer readable program code (column 4, lines 50-57) to invoke the SMI at predetermined time intervals (column 2, line 67 and column 3, lines 1-2).

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Re claim 13, Hobson discloses the computer program product (column 4, lines 47-49) wherein the computer readable program code to determine the thermal state comprises:

- computer readable program code (column 4, lines 50-57) to read a sensor indicating temperature of the processor (column 2, lines 41 and 42).

Re claim 21, Hobson discloses a system (FIG. 1) comprising:

- a processor (FIG. 1, 108);
- a memory coupled to the processor to store a thermal management module (column 4, lines 50-54, FIG. 1), the thermal management module including a system management interrupt (SMI) handler (column 3, lines 2-4) and a thermal management operating system (OS) (column 3, line 8), the thermal management module when executed, causing the processor to:
  - invoke a system management interrupt (SMI) handler in response to an SMI (column 3, lines 2-4),
  - determine a thermal state of a processor by the SMI handler (column 3, lines 2-4), and
  - interact between the SMI handler and one of a speed step technology (SST) applet and a thermal driver in a thermal management operating system (OS) (column 3, lines 4-10) to transition the processor to one of a low power state and a high

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power state based on the thermal state according to a native performance control status (column 3, lines 10-14).

Re claim 22, Hobson discloses the system (FIG. 1) wherein the thermal management module causing the processor to invoke the SMI causes the processor to:

- invoke the SMI at a predetermined time intervals (column 2, line 67 and column 3, lines 1-2).

Re claim 23, Hobson discloses the system (FIG. 1) wherein the thermal management module (column 4, lines 47-49) causing the processor to determine the thermal state causes the processor to:

- read a sensor indicating temperature of the processor (column 2, lines 41 and 42).

### ***Allowable Subject Matter***

Claims 9, 10, 19, 20, 29, and 30 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Re claims 9, 10, 19, 20, 29, and 30, the prior art fails to disclose or suggest the “interacting between the SMI handler and one of a speed step technology (SST)”.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Stoynov whose telephone number is (571) 272-4236. The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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